



PATENT

... 3654  
JFW

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Manfred SCHÖRGHUBER ET AL 1 PCT  
SERIAL NO: 10/551,945 GROUP: 3654  
FILED: OCTOBER 5, 2005  
FOR: BUFFER DEVICE FOR A WELDING WIRE AND WELDING UNIT

SUBMISSION OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY

Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**BEST AVAILABLE COPY**

Dear Sir:

Attached herewith is the International Preliminary Report on Patentability in the English language.

It is respectfully requested that the foregoing Report be incorporated into the official file of the present patent application.

Respectfully submitted,  
Manfred SCHÖRGHUBER ET AL.

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Enclosure: International Preliminary Report on Patentability

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 18, 2006.

  
Kelly Espitia

# PATENT COOPERATION TREATY

PCT/AT2004/000164

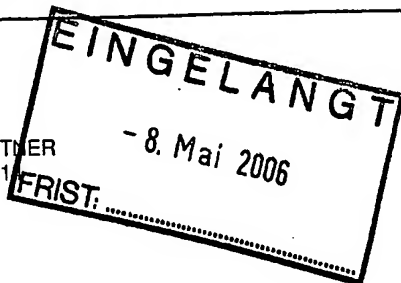
From the INTERNATIONAL BUREAU

## PCT

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

To:

SONN & PARTNER  
Riemergasse 1  
A-1010 Wien  
AUTRICHE



Date of mailing (day/month/year)  
27 April 2006 (27.04.2006)

Applicant's or agent's file reference  
R 43283

IMPORTANT NOTIFICATION

International application No.  
PCT/AT2004/000164

International filing date (day/month/year)  
11 May 2004 (11.05.2004)

Applicant

FRONIUS INTERNATIONAL GMBH et al

### 1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

### 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

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### 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

|  |   |   |                       |
|--|---|---|-----------------------|
| Applicant's or agent's file reference<br><b>R 43283</b>                      | FOR FURTHER ACTION  |   | See Form PCT/IPEA/416 |
| International application No.<br><b>PCT/AT2004/000164</b>                    | International filing date (day/month/year)<br><b>11.05.2004</b> | Priority date (day/month/year)<br><b>28.05.2003</b> |                       |
| International Patent Classification (IPC) or national classification and IPC |   |   |                       |
| Applicant<br><b>FRONIUS INTERNATIONAL GMBH</b>                               |   |   |                       |

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:
 

|   |   |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report   |
| <input type="checkbox"/> Box No. II           | Priority  |
| <input type="checkbox"/> Box No. III          | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/> Box No. IV           | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI           | Certain documents cited   |
| <input type="checkbox"/> Box No. VII          | Certain defects in the international application  |
| <input type="checkbox"/> Box No. VIII         | Certain observations on the international application   |

|   |                                   |
|---|-----------------------------------|
| Date of submission of the demand        | Date of completion of this report |
| Name and mailing address of the IPEA/EP | Authorized officer                |
| Facsimile No.                           | Telephone No.                     |

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AT2004/000164

Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))  
☐ publication of the international application (Rule 12.4)  
☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

☐ the international application as originally filed/furnished

☒ the description:

pages 1-23 \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

nos. \_\_\_\_\_ as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* 1-16 \_\_\_\_\_ received by this Authority on 15.11.2004 with letter of 11.11.2004

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

sheets 1/10-10/10 \_\_\_\_\_ as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AT2004/000164

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

|                               |        |                          |     |
|-------------------------------|--------|--------------------------|-----|
| Novelty (N)                   | Claims | 3, 5, 6, 8, 9, 11, 13-16 | YES |
|                               | Claims | 1, 2, 4, 7, 10, 12       | NO  |
| Inventive step (IS)           | Claims | 5, 6, 8, 9, 11, 13-16    | YES |
|                               | Claims | 1-4, 7, 10, 12           | NO  |
| Industrial applicability (IA) | Claims | 1-16                     | YES |
|                               | Claims |                          | NO  |

## 2. Citations and explanations (Rule 70.7)

1. This report makes reference to the following documents:

D1: DE 38 27 508 A (KUKA SCHWEISSANLAGEN & ROBOTER) 15 February 1990 (1990-02-15)

2. The application fails to meet the requirements of PCT Article 6 because claim 1 is not clear.

2.1 The phrase "a wire guide tube with a substantially larger cross-section than a cross-section of the wire core" in claim 1 is vague and unclear and causes the reader to be uncertain of the meaning of the technical feature involved. Consequently, the definition of the subject matter of this claim is not clear (PCT Article 6).

3. Irrespective of the aforementioned lack of clarity, the subject matter of claims 1, 2, 4, 7, 10 and 12 is not novel within the meaning of PCT Article 33(2), and the requirements of PCT Article 33(1) are therefore not met.

3.1 D1 discloses (the references in parentheses are to

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AT2004/000164

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

D1):

buffer device (4) for a welding wire (2) wherein a wire buffer (4) is situated between a wire advance device (6) on a welding device (7) and an additional wire advance device (3), and wherein a welding wire (2) is guided between the two wire advance devices (3, 6) in a wire core (8), and the wire buffer (4) is designed in such a way that one end (5) of the wire core (8) is fixed and the other end (4) is free to move, and wherein the wire core (8) with the welding wire (2) is provided in a freely moveable manner in a wire guide tube (10) that has a larger cross-section than the cross-section of the wire core (8), and wherein the storage volume of the wire buffer (4) is defined by the cross-section and the length of the substantially larger wire guide tube (10) (column 3, lines 14-42, figure). The subject matter of claim 1 is therefore not novel within the meaning of PCT Article 33(2).

- 3.2 D1 discloses a wire core (8) that is fixed in the region of the welding device (7) (claim 2). In addition, D1 discloses a wire guide tube (10) that is provided in a tube package (5) (claim 4). In addition, D1 discloses a buffer device (4) wherein the wire guide tube (10) is provided outside of tube package (5) (claim 7). In addition, D1 discloses means for detecting the fill level of the welding wire of the wire buffer magazine, longitudinal movement of the wire core being detected by the detection means (column 3, line 60

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AT2004/000164

|           |  |
|-----------|--|
| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  |
|           | <p>to column 4, line 12; reference signs 13 and 14, figure) (claim 10). In addition, D1 describes a buffer device (4) in which the wire buffer (4) can be replaced without the use of tools (claim 12).</p> <p>4. The present application fails to meet the requirements of PCT Article 33(1) because the subject matter of claim 3 does not involve an inventive step within the meaning of PCT Article 33(3).</p> <p>4.1 The subject matter of claim 3 consists of the selection of the diameter of the wire guide tube and the outer diameter of the wire core. Such a selection, however, can be regarded as inventive only if it has unexpected effects or properties in relation to the remainder of the range. Effects or properties of this type have not, however, been specified in the application. The subject matter of claim 3 therefore does not involve an inventive step.</p> <p>5. The combination of features in dependent claims 5, 6, 8, 9, 11 and 13 to 16 is neither known nor obvious from the available prior art. The reasons for this are as follows: The combination of features in dependent claims 5, 6, 8, 9, 11 and 13 to 16 is not known from the prior art. Furthermore, a person skilled in the art is not prompted by any of the prior art documents to design a wire guide tube according to claim 5 and/or a wire guide tube with additional</p> |

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AT2004/000164

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

lines according to claim 6 and/or a wire guide tube according to claim 8 and/or according to claim 9 and/or according to claim 11 and/or according to claim 14. Moreover, a person skilled in the art is not prompted by any of the prior art documents to design a terminating device according to claim 13. Moreover, a person skilled in the art is not prompted by any of the prior art documents to design a welding system according to claim 15 and/or claim 16.



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